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ABSTRACT

A study examined the use of office technology and the changing role of the management supportive staff in the modern office. During the study, the researcher conducted prearranged, one-hour personal interviews with individuals responsible for supervising day-to-day activities of management supportive staff at 50 companies in 16 sites. The interviewees were asked questions pertaining to the numbers and types of office machines and reprographics equipment used; the skills, knowledge, and understandings required of entry-level employees, types of preemployment tests used by their firms, job requirements for office management and secretarial positions; job duties of secretaries; the extent of information processing, records management, and electronic mail as a part of office routine; complaints concerning entry-level employees hired; and expectations concerning the progression of technology in the next five years. Based on the responses to these questions, the researcher urged business education teachers to provide an introduction of office technology to all students in business education programs; to provide hands-on training in word processing, keyboarding, and machine transcription to students training for secretarial and managerial supportive jobs; and to stress the importance of productivity, efficiency, and cost effectiveness at advanced levels of all courses. (MN)

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FINAL REPORT

A Study Of The Use Of Office Technology And The Changing Role Of The Management Support Staff In The Modern Office.

Conducted during the calendar year 1983 by:

Harry R. Moon, Curriculum Specialist
Materials for Business Education
MPC Educational Publishers

PURPOSE OF THE STUDY:

- To determine the extent to which office technology is currently being incorporated into office operations
- To determine the extent to which the role of the management support staff (secretarial and clerical) is being changed by office technology

METHOD:

- The author conducted prearranged, one-hour personal interviews with individuals responsible for supervising day-to-day activities of management support staff personnel at 50 companies. (A questionnaire was used to keep the interviewer "on track" and to help ensure the collection of uniform data.)

TITLES OF PARTICIPANTS:

- Manager of Personnel (3)
- Operations Manager (2)
- Office Manager (2)
- Vice-President (2)
- Manager--Administrative Services (3)
- Personnel Assistant (2)

Each of the following titles occurred once:

- Associate Superintendent
- Assistant to the Treasurer
- Assistant Vice-President
- Manager--Office Services
- President
- Supervisor
- Commissioner
- Office Supervisor

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- Personnel Officer
- Manager--Office Systems Planning
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- Vice-President for Management Services
- Manager of Administration for Marketing Services
- Administrative Services Specialist
- Wage and Salary Administrator
- Training Specialist
- Training Administrator
- Manager of Employment and Affirmative Action
- Chief of Administrative Support Services
- Director of Business Services
- Supervisor of Clerical Services
- Supervisor of Word Processing
- Associate Manager of Office Automation
- Electronic Banking Officer
- Manager of Nonexempt Staffing
- Senior Personnel Assistant
- Training/Development Coordinator
- Manager--Data Processing Network
- Human Resources Assistant
- Vice-President, Personnel
- Specialist--Salaried Personnel Relations
- Senior Correspondence Secretary
- Director
- Director of Staffing Personnel
- Manager--Information Services
- Manager--Office Automation
- Human Resources Representative
- Manager--Personnel and Insurance
- Employment Coordinator
- Claim Manager
- Personnel Coordinator
- Manager--Engineering Systems Procedures
- Manager--Office Systems
- Assistant Manager--Office Systems

NOTES:

- Although the author asked to interview "the person responsible for supervising the day-to-day activities of the management support staff," almost no consistency existed in the title of the individuals interviewed.
- In many interviews, it was necessary to talk with more than one person to get the information requested.

STATES INCLUDED IN THE STUDY: (16)

- Arizona
- California
- Connecticut

- Georgia
- Iowa
- Kentucky
- Minnesota
- New York
- North Carolina
- Ohio
- Pennsylvania
- South Carolina
- Tennessee
- Texas
- Virginia
- Wisconsin

TYPES OF COMPANIES/ORGANIZATIONS INCLUDED:

- Insurance
- Banks
- Manufacturing
- State Government Agencies
- Public Utilities
- Automobile Club
- Newspaper
- Pharmaceutical Company
- Savings/Loan Institution
- Educational Institution
- Business Consulting Firm
- Oil Companies
- Railroad
- Meat Packing Company
- Medical Products Company
- CPA Firm
- Hospital
- Insurance/Financial Services Company
- Military Supply Depot
- Holding Company
- Energy/Chemical Company
- Law Firm
- Restaurant Franchiser
- Hospital Management Company
- Insurance Administrator/Broker
- Transportation Company

COMPANIES AND ORGANIZATIONS PARTICIPATING IN THIS STUDY (50)

- Aetna Casualty Insurance Company
- Atlantic Richfield Company (ARCO)
- Auto Club of California
- Barrow Manufacturing Company
- Blue Cross and Blue Shield (three locations)
- Bonanza International

- Burroughs Wellcome Company
- Carolina Power and Light Company
- Citizens Fidelity Bank and Trust Company
- Citizens and Southern National Bank
- Colonial American Bank
- Datapoint Corporation
- Diamond Shamrock Corporation
- Durham Life Insurance Company
- Equitable Life Assurance
- First Federal Savings and Loan
- Frost National Bank
- General Electric
- Georgia Department of Education
- Golden State Mutual Insurance Company
- Hospital Corporation of America
- Innotech
- Kirke-Van Orsdel, Incorporated
- Locke, Purnell
- Main Hurdman
- Metropolitan Life Insurance Company
- Minnesota Power
- National City Bank
- (The) News and Observer Publishing Corporation
- North Carolina Farm Bureau Insurance Company
- Norwest Banks
- Ohio Medical Products
- Oscar Meyer
- Ruan Transportation Companies
- St. Lukes Hospital
- Sikorsky Aircraft
- Sohio
- South Carolina Electric and Gas
- Southern Pacific Transportation Company
- Sperry New Holland
- State Merit System (GA)
- Third National Bank
- Transamerica Corporation
- United States Automobile Association (USAA)
- United States Naval Supply Depot
- University of Georgia
- Wisconsin Department of Administration
- Wisconsin Physicians Service

SIZES OF COMPANIES PARTICIPATING (based on number of management support personnel employed)

Fewer than 50	12 (24%)
50-100	10 (20%)
101-200	10 (20%)
201-300	4 (8%)
More than 300*	14 (28%)
Total	50 (100%)

*A few very large companies (410, 2040, 700, 600) were included.

NUMBER OF CLERICAL AND SECRETARIAL EMPLOYEES

Clerical:

Fewer than 25	12
25-50	9
51-75	1
76-100	7
101-200	3
201-300	5
301-400	None
More than 400	11
Total	48

Secretarial:

Fewer than 25	20
25-50	18
51-75	2
76-100	3
101-200	4
More than 200	2
Total	49

NOTES:

- Two companies reported that they do not have employees in the clerical category, and one company reported that it does not have employees in the secretarial category.
- A few firms preferred the title Administrative Assistant to Secretary.
- Several firms indicated that they hire part-time management support staff as the workload requires it. Part-time staff are not included in the preceding figures.

NUMBER OF ELECTRONIC MEMORY TYPEWRITERS IN USE:

Number of Memory Typewriters	Number of Companies	Percentage of Companies
None	18	36%
1-5	21	42%
6-10	8	16%
11-15	3	6%
Total	50	100%

NOTES:

- Many firms stated that fewer than half of their regular typewriters include the self-correcting feature. (A few firms indicated that the majority of their typewriters are self-correcting.)

- One firm reported that they are in the process of replacing their electronic typewriters with memory writers.
- A few firms indicate that electronic memory typewriters are available on a shared basis (not at individual workstations).

OFFICE MACHINES USED BY MANAGEMENT SUPPORT STAFF (other than WP, DP, typewriting, reprographic, and records management equipment)

Equipment	Number of Companies	Percentage of Companies
Electronic Calculators	48	96%
Dictation/Transcription Equipment	43	86%
Ten-key Adding Machine	9	18%
Check Sorter	2	4%
Check Encoder	1	2%
Full Keyboard Adder	1	2%

NOTES:

- A few companies indicated that use of both the electronic calculator and dictation/transcription equipment is "very limited."
- The company using full keyboard adders indicated that they are being phased out.

REPROGRAPHICS EQUIPMENT BEING USED BY MANAGEMENT SUPPORT STAFF

Equipment	Number of Companies	Percentage of Companies
Photocopy	50	100%
Offset	29	58%
Printer/Collater	9	18%
Ditto	5	10%
Mimeograph	6	12%

NOTES:

- All companies reporting the use of ditto and mimeograph equipment reported that it was limited to internal use. One company using ditto reported that support staff personnel are responsible only for preparing masters. (They do not run the equipment.)
- Most companies reported that photocopy equipment is on the floor within departments while other reprographic equipment is in a centralized area.
- A few companies reported that centralized reprographic areas do a very high volume of work.
- One company reported extensive use of electronic phototypesetting equipment.

. One company reported that all reprographic work other than photocopy is subcontracted to a local printing company.

SKILLS, KNOWLEDGES, AND UNDERSTANDINGS REQUIRED OF ENTRY-LEVEL EMPLOYEES:

Clerical:

Primary Skills and Traits:

Typing/keyboarding
Mathematics
Language skills
Pleasing personality
Verbal communications
Ability to operate electronic calculator
Accounting skill
Ability to operate ten-key keyboard
Telephone skills
Accuracy of work
Knowledge of office procedures
Ability to work with machines
Previous work experience
Ability to read

Also mentioned (by fewer than 6 percent of companies):

Productivity
Ability to read computer printouts
Good attendance
Stability
Word processing skills
Formatting skills
Understanding of office technology
Data entry skills
Sound judgment
Knowledge of medical terminology
Filing skill
Spelling
Flexibility
Sorting/coding skills

Secretarial:

Primary Skills and Traits:

Typing/keyboarding
Language skills
Communications skills
Ability to work cooperatively with others
Good telephone skills
Word processing skills
Secretarial procedures
Spelling
Mathematics

Post-secondary business training (or work experience)
Accounting
Office machines

Also mentioned (by fewer than 6 percent of the companies):

Accuracy
Setting priorities
Productivity
Flexibility
Ability to learn
Proofreading skill
Report preparation skill
Statistical typing
Filing
Organization
Dependability
Good attendance
Knowledge of office systems
Logical thinking
Supervisory skills
Business writing skill
Time management skill
Knowledge of graphics and statistics

NOTES:

- Machine transcription and shorthand skill requirements are reported in a separate section of this report.
- In general, typing speed requirements were higher for secretarial jobs than for clerical jobs. Many companies mentioned that typing is very limited in the clerical area.

PRE-EMPLOYMENT TESTS ADMINISTERED:

Test	Number of Companies	Percentage of Companies
Typing	42	84%
Shorthand transcription	12	24%
Proofreading	5	10%
Language skills	6	12%
Spelling	6	12%
Clerical skills	4	8%
Machine transcription	3	6%
General aptitude	4	8%
Editing	4	8%

Other tests (fewer than 6 percent of the companies):

Calculating
Math
Coding/checking
Word usage

Accounting
Punctuation
Letter composition
Word processing operations
Data processing operations
Ten-key operation
Office procedures
Rough-draft copy
Logical thinking
Life Management Association test

No tests given--4 (8%)

NOTES:

- Most of the companies requiring typing tests give five-minute straight copy tests--one company gives a seven-minute straight copy test--one company gives an untimed test with emphasis on accuracy.
- One company indicated that tests would be waived for an applicant who had satisfactorily completed a secretarial program at a post-secondary institution.
- One company reported that WP operations tests are given "in house." Other tests for that company are administered by employment agencies that prescreen job applicants. Another organization reported that the state employment service administers all their pre-employment tests except typing tests.
- Several companies reported that shorthand tests are administered to a very limited number of job applicants. (See the following section of this report.)

SHORTHAND AS A REQUIREMENT FOR ENTRY-LEVEL SECRETARIAL JOBS:

Required	28 (56%)
Not required	22 (44%)

NOTES:

- Eighty-nine percent of the companies that reported that shorthand is a requirement for secretarial job candidates reported that employed secretaries use their shorthand on the job. (Eleven percent reported that the secretaries do not use their shorthand on the job. In these companies, shorthand skill is used for pre-employment screening.) Of the 89 percent that reported that shorthand is used on the job, 68 percent reported that the use of shorthand would be limited or very limited.
- Two companies that said shorthand is a requirement for secretarial job candidates reported that shorthand is used for notetaking, not verbatim dictation.

. One company reported very heavy use of shorthand for verbatim dictation.

. Several companies suggested that some type of notetaking skill is desirable for secretarial job candidates.

MACHINE TRANSCRIPTION AS A REQUIREMENT FOR ENTRY-LEVEL:

Secretarial Jobs

Yes	30 (60%)
No	20 (40%)

Clerical Jobs

Yes	10 (20%)
No	40 (80%)

NOTES:

. One hundred percent of the companies that reported that machine transcription skill is a requirement for secretarial job candidates reported that machine transcription skill is used on the job. Seventy percent of the companies that reported that machine transcription is a requirement for clerical job candidates reported that machine transcription is used on the job.

. Of the secretarial group who use machine transcription on the job, 33 percent reported that its use is limited or very limited.

WORD PROCESSING AS A PART OF OFFICE OPERATIONS

Yes	41 (82%)
No	9 (18%)

NOTES:

. Of the group that does not currently have word processing, 67 percent reported that they plan to incorporate it in the future (some are now in the planning stage); and 33 percent reported that they have no plans (at the present time) to incorporate word processing.

Type of Word Processing Operation:

Centralized	16 (39%)
Satellite	9 (22%)
Combination of Centralized and Satellite	16 (39%)
Total	41 (100%)

Number of Workstations:

Number of Workstations	Number of Companies
1	1
2	4

Number of Workstations: (continued)

Number of Workstations	Number of Companies
3	4
4	2
5	1
8	1
10	4
11	1
12	1
14	1
15	1
17	2
18	2
20	4
21	1
23	1
25	1
31	2
35	1
37	1
40	1
75	1
100	1
166	1
200	1
893	41

Median 22

Type of Word Processing Equipment being used:

Vendor	Number of Companies	Percentage of Companies
IBM	20	49%
Wang	10	25%
Lanier	7	17%
Xerox	4	10%
Vydec	3	8%
CPT	3	8%
AB Dick	2	5%
NBI	1	3%
NCR	1	3%
Datapoint	1	3%
Sperry	1	3%

NOTES:

. Several companies reported that they use more than one type of word processing equipment.

. One company reported that they have more than one shift of word processing operations.

INFORMATION PROCESSING (WP/DP) AS A PART OF OFFICE OPERATIONS:

Yes	22 (44%)
No	28 (56%)

NOTES:

. Forty-six percent of the group that answered yes reported that the current use of information processing is limited. One company reported that they expect to complete total implementation of information processing in 1984.

COMPUTER EQUIPMENT BEING USED for Information Processing

Vendor	Number of Companies	Percentage of Companies
IBM	14	64%
Digital	2	9%
Datapoint	2	9%
Hewlett Packard	2	9%
Sperry Rand	1	5%
Data General	1	5%
Raytheon	1	5%
Control Data	1	5%

NOTES:

. Two companies reported that they use more than one type of computer equipment.

. Of the twenty-eight companies that reported that they are not currently using information processing, twenty-two reported that they will use information processing in the future. (Of that group, eight companies are currently planning implementation.) Six companies reported that they have no current plans to implement information processing.

RECORDS MANAGEMENT:

Types of Records Stored:

Type	Number of Companies	Percentage of Companies
Paper	50	100%
Magnetic Disks	47	94%
Cassette Tapes	39	78%
Microfiche	38	76%
Reel-to-Reel Tapes	37	74%
Microfilm	33	66%

Types of Records Stored: (continued)

Type	Number of Companies	Percentage of Companies
Magnetic Cards	17	34%
Aperture Cards	5	10%
Punched Cards	1	2%

NOTES:

. The company that stores punched cards reported that it is phasing them out. Two companies each reported that their use of magnetic cards and microfilm is very limited. One company reported that they store only paper records. (Most companies reported storing several different types of records.)

Records Storage Operation:

Process	Number of Companies	Percentage of Companies
Centralized	6	12%
Department by department	12	24%
Combination	32	64%

ELECTRONIC MAIL AS A PART OF OFFICE OPERATIONS

Yes	36 (72%)
No	14 (28%)

Electronic Mail Media used (by the "yes" group)

Media	Number of Companies	Percentage of Companies
MAILGRAM®	4	11.2%
Teletypewritten Messages	18	50 %
Facsimile Transmissions	23	63.9%
Information Processing	22	61.2%

NOTES:

. Some companies reported using more than one type of electronic mail. Of the group currently using electronic mail, 30 companies (83%) plan expansion. Nineteen companies plan to expand in the information processing media; 11 companies are uncertain of how they will expand.

. Of the group not currently using electronic mail, six companies (43%) plan to implement electronic mail in the future. Of that group, four companies plan to begin with information processing; two companies are not certain what media they will use.

EMPLOYERS' COMPLAINTS ABOUT ENTRY-LEVEL EMPLOYEES HIRED:

Poor language skills
Poor attitude
Poor spelling
Poor communications skills
Poor math skills
Lack of motivation
Poor typing skill
Excessive absences
Use of poor judgement
Poor writing skills
Poor telephone usage
Don't understand "total business picture"
Lack productivity

Others: (mentioned less frequently)

Poor office machines skills
Lack knowledge of filing
Don't understand the role of a secretary
Poor grooming
Unable to set priorities
Don't understand banking terminology
Poor editing/proofreading skills
Lack attention to detail
Lack flexibility/adaptability
Constantly tardy
Won't follow instructions
Fail to ask for guidance
Poor reading skill
Lack self-confidence
Bring personal problems to business
Poor proofreading/editing skills
Poor math skills

EXPECTED PROGRESSION OF TECHNOLOGY IN THE NEXT FIVE YEARS:

Data entry terminals at most decision maker workstations
Expanded information processing at all company locations
Extensive information processing and electronic mail applications
Networking of word processing and data processing terminals for internal and external use
Expanded use of electronic mail
On-line with clients for faster claims processing

Less frequently mentioned:

Expanded electronic and optical filing systems
Customer access to mainframe database for bill paying
More use of microfilm
Heavy expansion in all areas of technology

All secretarial workstations will have memory keyboard equipment
More satellite word processing
Totally paperless claims processing
Electronic keyboards at all executive workstations
More sophisticated equipment with more applications
More dependency on word processing center (to reduce costs)
More computer-assisted instruction for in-house training
Extensive use of robotics and Laser transmissions
Voice, graphic, image, text capabilities through one unit
Large internal network of personal computers
More use of scanners
More extensive use of word processing
More extensive use of independent micros
More use of computer by the professional staff
Start information processing applications and expand word processing
Limited use of voice mail applications
Extensive video conferencing

ADDITIONAL INFORMATION:

- Many companies stressed the need for keyboarding skills for all office personnel (management and support).
- Most companies commented about the need to be certain that an increase in office technology will enable them to be more cost effective, efficient, and productive.
- Several companies reported that they are in the process of describing secretarial jobs separate from the manager whom the secretary supports. Salary, too, is being determined by the secretarial job description rather than by the level of manager the secretary supports.
- Several companies reported changing job roles for upper-level secretaries because the technologies of the office are relieving secretaries of much of the "busy work" they have done in the past. New job roles include complete responsibility for overseeing important projects and supervision of other support personnel.
- Almost every company commented about the need to upgrade basic skills for all support personnel. They commented particularly about the need to improve language skills (including grammar, spelling, and punctuation), basic math skills, and oral and written communications skills.

IMPLICATIONS FOR BUSINESS TEACHERS

The findings of this study suggest that business teachers should do the following to prepare students realistically for entry-level employment in a modern business office:

1. Teach introduction to office technology to all students in business education programs. Every student who is preparing for employment in business should have a thorough understanding of the concept and use of data processing, word processing, information processing, electronic mail, and records management in modern business. An introductory course should include a definition of the technologies and explanations of how the technologies function in an office, how various office jobs interrelate with the technologies, skills necessary to deal with the technologies efficiently, terminology related to the technologies, and the equipment related to the technologies.

2. Provide hands-on training in word processing for every secretarial student.

3. Require training in keyboarding for every student preparing for business career. (For those training for office support jobs--clerical and secretarial--productivity [speed with accuracy] should be emphasized.)

4. Teach machine transcription to students training for management support jobs emphasizing productivity (speed with accuracy). Ideally, such a course would be a separate one-semester course rather than a three-or-four-week block in an office machines course.

5. Stress the importance of productivity, efficiency, and cost effectiveness at the advanced levels of all courses. (An important reason for the increased use of office technology is increased productivity, efficiency, and cost effectiveness.)

6. Emphasize the importance of language skills, basic math, and communications skills (oral and written). (Employers consider these skills to be vital to success in business.)

7. Teach all business students how to dictate and how to use dictating equipment because all office workers will likely be involved in the word processing cycle in some way. (A better understanding of how to dictate and how to use dictating equipment may help to improve the use of dictating systems in offices.)

8. In all courses, stress the importance of setting priorities realistically and of maintaining proper work-flow procedures in order to increase productivity and efficiency.

9. Incorporate human relations skills, businesslike attitude, positive motivation, flexibility and adaptability as a part of daily classroom procedures. (Be absolutely certain that what is taught and what is practiced daily are the same!)

10. Teach editing and proofreading skills. (Don't assume that students understand how to edit and proofread.) Teach students to be "error concious," and teach them how to use a variety of reference sources.

11. Review the content of the entire business curriculum and of each individual course to be certain that what is being taught is consistent with what is needed in a modern business office. Constantly revise courses and curriculum to be certain that this objective is met.

12. Include in secretarial courses training in leadership, supervision, management, and in budgeting and interpreting accounting documents, since upper-level secretaries in many companies are having responsibility for managing projects and supervising other office workers.

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